Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Section 255 of the Telecommunications Act of 1996	)	
	)	WT Docket No. 96-198
Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment By Persons with Disabilities	)	

Reply Comments of the Massachusetts Assistive Technology Partnership with Assistive Technology for Kansans DakotaLink (South Dakota) Iowa Program for Assistive Technology MaineCITE (Maine Consumer Information Technology and Training Exchange) Missouri Assistive Technology Partnership Montana's Technology-Related Assistance Program for People with Disabilities (MonTECH) New Hampshire Assistive Technology Partnership Project North Carolina Assistive Technology Project Oklahoma ABLE Tech Oregon Technology for Life Needs Pennsylvania's Initiative on Assistive Technology Utah Assistive Technology Program Washington Assistive Technology Alliance

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Summary.

The Massachusetts Assistive Technology Partnership (MATP) together with the undersigned Tech Act Projects supports the Commission's efforts to implement Section 255 of the Telecommunications Act. The Commission should issue rules to ensure that

telecommunications service providers and information technology equipment manufacturers have maximum clarity on process and performance expectations under Section 255; and to ensure that individuals with disabilities likewise have the opportunity to be clearly apprised of the provisions of Section 255 regarding accessibility, usability and compatibility which will enable their full participation in our society.

The marketplace has proven unable to protect the needs of individuals with disabilities with regard to telecommunications access. Even where the marketplace has served as the vehicle of government intervention, the marketplace has provided no timely solution and proved inadequate in preventing continued harm from access barriers persisting during a prolonged retrofit. The Commission should protect against a repetition of this poor model through the establishment of clear regulations and guidelines.

Consideration of access across a product line is not a satisfactory substitute for the product-by-product accessibility intended in Section 255. We dispute the applicability to telecommunications of analogies such as accessible theater seating, and find industry's suggestions of truly comparable model offerings to be unlikely.

Process guidelines cannot stand alone. Performance guidelines must provide the primary guidance on accessibility of telecommunications equipment and customer premises equipment.

Customer Premises Equipment must include the software needed to operate it; otherwise the customer would have a device which was only half-regulated with respect to the provisions under Section 255. Similarly, given the convergence of telecommunications with many types of existing and newly-emerging information technologies, it would contravene the intent of Section 255 to regulate only that CPE which was designed

exclusively for telecommunications, leaving all other CPE with partial telecommunications functions unprotected.

Manufacturers who sell in international markets should not be exempt from accessibility requirements, but should be subject to the same requirements as manufacturers selling solely to the domestic market.

1. Introduction.

The Massachusetts Assistive Technology Partnership (MATP) together with the undersigned Tech Act Projects thank the Federal Communications Commission ("Commission") for this opportunity to provide reply comments in the matter of accessibility of telecommunications services, telecommunications equipment, and customer premises equipment.

The Tech Act Projects are a consumer-responsive systems change project under Title I of the Technology-Related Assistance for Individuals with Disabilities Act of 1988, as amended in 1994. Our mission is to increase access to assistive technology for people with disabilities in order that people with disabilities can participate more fully in employment, education, and community activities, and be more independent in daily living. Towards that end, we also seek to reduce barriers to telecommunications so that people with disabilities will be able to enjoy the benefits of commonly available telecommunications without having to rely unnecessarily on specialized and expensive work-arounds to mainstream technologies.

As a member of the Telecommunications Access Advisory Committee (TAAC) under the Architectural and Transportation Barriers Compliance Board (Access Board), the

Massachusetts Assistive Technology Partnership is representing Tech Act Projects in the dialog between industry and the disability community regarding mutual needs and solutions in developing accessibility guidelines under Section 255. We have found a principled and cooperative process among industry and disability members to date in drafting guidelines for accessibility of telecommunications equipment and customer premises equipment.

We offer responses below to issues raised in the initial comment period.

2. Electronic submissions.

We would first like to comment on an administrative matter. We commend the Commission for recommending that filings on this NOI be submitted in electronic format in addition to the traditional hard copy; and also commend the Commission for establishing a page on the FCC web site which has become, in essence, an electronic public record. This electronic posting can facilitate the review of and response to comments by members of the public including individuals requiring alternative formats.

We did however note that not all respondents submitted in electronic format; and that for those who did, the Commission did not post all electronic files received. The resulting incomplete electronic posting has presented difficulty for some organizations, including some among those filing jointly in this submission, in reviewing and responding to the full range of consumer and industry comments.

We respectfully ask that (a) the Commission require rather than recommend submission of an electronic copy in addition to hard copy in the future; (b) the Commission refine its tracking procedure for disk submissions, so that all disks which are submitted in

conformance with FCC requirements are then posted; and that (c) the Commission broaden this submission requirement to all public proceedings under its jurisdiction.

3. The marketplace does not offer sufficient protection for people with disabilities; protection is needed in the form of clear regulations and guidelines.

In their comments Microsoft suggests that their recent efforts in regards to accessibility are attributable to market pressure, and had no relation to government intervention; that competitive forces in the market are sufficient to protect the needs of people with disabilities; and that therefore no regulations are needed for Section 255 (pages 2, 5, 8).

We submit that the marketplace has not protected the needs of individuals with disabilities, and does not have the capability to do so. Had it done so, Congress would not have seen fit to include Section 255 in the Telecommunications Act; and moreover a great number of individuals with disabilities would not have found their lives disrupted by barriers created by inaccessible telecommunications equipment and services. As background for our reply we would like to provide additional information regarding the source of the market pressure to which Microsoft refers in their comments.

3.a. The market pressure to which Microsoft refers could not have occurred without government intervention.

In replying to Microsoft's comments in this section, we would first like to clarify that we in no way wish to detract from the importance of the corporate commitment to accessibility at Microsoft, nor from the excellent efforts of the dedicated accessibility team at Microsoft; but rather to highlight the context in which these have evolved, insofar as they apply to potential implementation approaches for Section 255.

The Massachusetts Assistive Technology Partnership and several others among the Tech Act Projects with whom we are jointly filing have been much involved in generating the market pressure to which Microsoft refers, and our experience has been considerably different regarding the interaction of government intervention and market pressure than that which is conveyed in Microsoft's filing.

Very briefly, in the fall of 1994, disability-related agencies in Massachusetts met to review the growing volume of complaints from blind computer users who reported loss of jobs, promotions, and anticipated hires due to the increased use of Windows 3.1 in the workplace. Communication with national advocacy organizations, the Federal government, and eventually with Microsoft itself confirmed not only a substantial history of unresolved dialog on access needs, but indications that Windows 95 would not address the most significant barrier to accessibility -- screen reader compatibility with Windows and Windows-based applications.

After a review of the state's obligations under Section 508 of the Rehabilitation Act, which requires accessibility of information technology procured through government agencies, Massachusetts officials took the unprecedented step, in January, 1995, of communicating with a major operating system manufacturer their concerns that our state government would not be able to purchase Windows 95 unless certain changes were made.

At the same time, other states were conducting similar reviews; national advocacy organizations were expanding their efforts; and parts of the federal government were re-examining their own obligations under Section 508. The State of Missouri, after months of unsatisfactory attempts to negotiate accessibility improvements with Microsoft, took the measure of instituting an embargo on Missouri State Government's purchase of Windows

95 for the three months following its release, and other states considered similar actions. States were able to undertake these measures precisely because of the existence of Section 508 requirements.

In other words, the market pressure to which Microsoft refers, and which resulted in their corporate commitment to accessibility, would have been impossible without government intervention.

3.b. The market pressure which resulted has been inadequate to prevent further harm.

It is also instructive to examine the response which resulted from this market pressure. Microsoft responded by establishing one of the most comprehensive access efforts of any software manufacturer to date. In January, 1995, a Senior Vice President at Microsoft sent correspondence to the Massachusetts Commission for the Blind and the National Council on Disability describing the company's commitment to change its approach on access issues. Yet from that point until today -- twenty-two months later -- the final version of Microsoft's accessibility solution for the screen reader problem has yet to be released. It is, we hear, very near. In the interim, the situation for blind computer users whose workplaces have adopted Windows has only minimally improved. We continue to receive a steady stream of complaints from individuals whose livelihoods are in jeopardy due to adoption of the Windows operating system in their workplaces.

In other words, Microsoft's efforts to retrofit, in response to government intervention operating through the marketplace, have been unable to prevent continued harm. And arguing to replicate this mechanism in Section 255 implementation would be treacherous for all concerned. Retrofitting is what results when one leaves provision of access to be sorted out by the competitive forces of the marketplace. Retrofitting is the surest way to

drive up the cost of providing innovations past a threshold of ready achievability. Retrofitting, and repeated dislocation in the livelihoods, educations, and other activities of people with disabilities, is what Microsoft asks for when it proposes that equipment not be covered by Section 255 during its first year on the market (page 9).

3.c The strategies that were necessary to leverage market pressure in a situation of indirect government intervention are a poor model, and we should protect against the necessity of repeating this through the establishment of clear regulations and guidelines.

A further area of concern arises with Microsoft's articulation of an anti-regulatory philosophy in the realm of access engineering, and with their casting of their own marketplace experience as an excellent model (page 2).

The strategies to which advocates had to resort to obtain a response, even in the presence of indirect government requirements, were highly unconventional for the realm of state purchasing, and hardly evidence of a marketplace that operates effectively in meeting the needs of people with disabilities. This was due in part to the fact that Section 508 of the Rehabilitation Act affects only what is purchased, not what is sold, and then only by a limited section of the marketplace; therefore Section 508 had to be leveraged very creatively to secure any impact.

On a fundamental level, these advocacy strategies represented an enormous and unfortunate waste of resources and talent. Industry should not have to send out their vice-presidents to respond to threats of embargoes. The disability community should not be forever burdened with drumming up grassroots campaigns to achieve something which Congress has already recognized as a legitimate need in telecommunications. Realistically, such campaigns can only focus on a few companies at a time, and cannot be sufficiently effective across an

entire market to accomplish Congress' intended goal in Section 255. Microsoft's proposal for an unregulated environment, in the context of its own history with the disability community, would have the unwelcome consequence of promoting never-ending rounds of advocacy campaigns as the only means by which to secure accessibility. We argue that the field of accessible telecommunications has matured beyond that now; and that one of the evidences of that maturity is in the evolving model of industry-disability coordination on the Telecommunications Access Advisory Committee. A clearly constructed, well-regulated model will enable industry and the disability community to give each other the best that they can offer, rather than further miring our mutual resources and energy in adversarial contests.

4. Access across a product line is not sufficient; access on a product-by-product basis should be the objective, where readily achievable.

Several industry commentators (CEMA, Microsoft, Motorola) suggest that access across a product line is sufficient. We feel that provision of accessibility, usability and compatibility on a product-by-product basis, to the extent readily achievable, is essential to the successful implementation of the provisions under Section 255. To the extent that accessibility, usability, and compatibility are not readily achievable for a specific product, we feel that consideration across a product line would then be of benefit; but not if in so doing the primary focus is removed from the extent of potential accessibility that is readily achievable on a per-product basis.

4.a. Theater seating is not an appropriate analogy for telecommunications equipment or customer premises equipment.

In Motorola's comments (pp. 19 - 21) the analogy is made of how the ADA operates in theater seating. I would argue that a theater seat is not an acceptable analogy for a cell

phone, nor for other telecommunications equipment and CPE. At the time of use (during a theater performance), there are many seats in the theater. If one is fortunate, several among the designated accessible seats may have sight lines, proximity, and pricing comparable to the choices available to audience members who do not require accessible seating. However, at the time of use, the only cell phone one typically has access to is the one in your hand -- a model for which accessibility, usability and compatibility have hopefully been engineered to the extent readily achievable.

The argument could be made that the customer has the opportunity to choose among models, some of which have various access features, at the time of purchase. But the inventory of a cell phone provider is fluid, not fixed as is the seating in theaters. Suppose the cell phone provider has run out of the accessible model, or in fact doesn't maintain inventory of that model but must special-order it? In that case, the fact that the manufacturer has considered access across a product line does not result in a situation where Customer A, who has a disability, has comparable access; and therefore the objective of readily achievable accessibility is not met in that situation.

4.b. Substantially greater benefits result from consideration of accessibility on a product-by-product basis.

Now suppose additional scenarios. Customer B, being curious about access, inquired about it, but not having a disability herself, purchased an inaccessible model. And now Customer B is in a darkened location -- perhaps a broken-down elevator, a broken-down car at night -- and can't see the face of her phone to dial. Wouldn't it be highly preferable for that phone to have included a feature which would be of benefit in this situation of temporary functional limitation, if in fact that accessibility feature was readily achievable for that specific product?

And then there is Customer C, not an avid follower of national policy dialog around Section 255, who loads up on CPE at an annual sale at Sears, unaware of any need for accessibility features. Customer C goes home; he uses the equipment for two months (to inconveniently take us past the return policy period) and then gets diagnosed with perhaps a rapid vision loss, or hearing loss, or a deteriorating neurological condition. What do we tell him now? That we determined that the manufacturer didn't need to consider product-by-product accessibility, even if it was readily achievable, and that he should have anticipated his pending functional losses? Better that accessibility, usability, and compatibility is considered to the extent readily achievable for a given product.

And finally, we have Customer D, who has a combination of functional needs. Customer D has conditions which simultaneously limit her dexterity, speech, and hearing. It's not all that unusual. If our directive to manufacturers is to follow a concept of "distributed access," (as in: accommodate these functional needs somewhere among your product offerings in this line) then Customer D is between a rock and a hard place, just as she was before this legislation went into effect. She must choose which accommodations she will try to struggle by without, or else continue to remain cut off from the potential of telecommunications while others around her enjoy its benefits.

We harbor absolutely no illusions that there is a cross-disability solution for each and every telecommunications product. We simply ask that manufacturers be required first to apply the readily achievable test on a product-by-product basis, and that to the extent accessibility, usability or compatibility is not possible for a given product, that the manufacturer may then consider accessibility, usability, and compatibility on a product line basis. In considering accessibility on a product-by-product basis, engineers would be least likely to overlook potential applications of universal design principles. They could then augment that access on a product line basis.

4.c It is unrealistic to expect truly comparable product offerings.

There is one more problem, on a practical level, with the premise that access across a product line would be sufficient. Manufacturers do not typically offer multiple product models which are truly comparable, since the costs of maintaining differing production runs, dealing with testing and certification, handling inventory and supply and so forth for separate models, are not insignificant. It is realistic to expect that models which would be truly comparable, except for the presence of one access feature or another, would themselves be ruled out by the readily achievable test.

So, to come back to the theater and re-work the analogy, we would really be talking about a theater in which there are perhaps only five seats, not several hundred, and those five seats would each be differentiated in many ways -- by sight-line; by proximity to the stage; by price; by degree of comfort and convenience; by presence or absence of captioning equipment on the seat-back immediately in front; by location to one side or in the center for acoustic balance, etc. To fully implement the intent of Section 255, we believe that in the theater analogy each of those five differentiated seats would have to be accessible to the extent readily achievable; and we urge the Commission to ensure that for telecommunications devices and CPE, ready achievability of accessibility, usability, and compatibility is determined on a product-by-product basis.

5. Process guidelines alone are insufficient; performance guidelines provide the primary guidance on the accessibility of telecommunications equipment and CPE.

CEMA (p. 2) among other respondents suggests that process guidelines are sufficient. We submit that process guidelines alone would be insufficient to ensure readily achievable

accessibility, and that performance guidelines form the essential core of the evolving guidelines as conceived by the joint industry-disability membership of the TAAC.

The evolving consensus in the TAAC includes process, performance, and compliance guidelines. These different types of guidelines would accomplish the following objectives. (a) Process guidelines would set general requirements relating to accessibility in the areas of: documentation of accessibility planning and decisions; review of existing products; marketing communications; customer service communication; product and operational support; information and consultation about accessibility needs; examination of access in design and development; research; procurement and sourcing; training; disability access statement; and specialized CPE. (b) Performance guidelines would establish Level One guidelines which are essentially principles such as accessible to and usable by, compatibility, and electro-magnetic non-interference; and Level Two requirements which are essentially statements of performance objectives such as input or output considerations (example of an input guideline relating to dexterity: "Where readily achievable, controls and mechanical elements shall be operable without requiring fine motor control or multiple simultaneous actions," and an example of an input guideline regarding speech: "Where readily achievable, speech shall not be required to operate the product.") (c) Compliance and coordination guidelines would set the framework in which process and performance guidelines are applied, and establish processes for industry-disability coordination, verification of compliance, complaint resolution, and so forth.

A company that follows the draft process guidelines would be far more likely to produce accessible telecommunications products than one that disregarded such basic measures as communicating effectively with a public that includes individuals with disabilities. However, if that company were to proceed without reference to the performance guidelines, it would have no way to judge whether its own products were accessible, nor

would it know on what basis its products would be judged by its public and potentially by the FCC.

The proposed performance guidelines are not constraining in terms of method of achieving the access objectives; they merely make explicit what the manufacturer is expected to accomplish, if readily achievable, regarding particular functional needs. They capture issues regarding functional needs across a broad range of disabilities and organize them in a manner which engineers can use in product design and development, and which companies can then use in self-verification of access outcomes. We submit that such clear but non-constraining performance guidelines are crucial to the effective implementation of Section 255, and that the Commission would be remiss in not requiring manufacturers, through the issuance of rules, to heed performance guidelines which articulate the foundation of Section 255 compliance.

6. Customer Premises Equipment (CPE) should include software.

Microsoft Corporation suggests that CPE should not include software. CEMA asserts that "contamination of function" should be disregarded.

Both of these positions stray far from the emerging consensus among industry and disability representatives alike on the TAAC regarding what is meant by CPE. Because software is becoming overwhelmingly integral to the functioning of any CPE, it is in many cases no longer possible to separate out the role that software plays. The draft performance guidelines include the concept of "customer premises user interface" precisely to acknowledge this integral role of software. Furthermore, as most types of information technology and many assistive technologies have the capability to be used to provide some telecommunications functions, it is prudent to require that the potential telecommunications

functions which these products might support should be accessible, usable, or compatible to the extent readily achievable. We submit that the Commission should require accessibility, usability and compatibility for the software needed to operate information technology which has a potential communications application, and for the software used to provide the telecommunications function.

7. Manufacturers who sell in international markets should not be exempt from accessibility requirements.

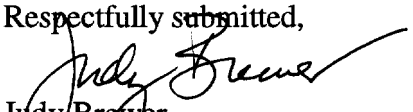
Several respondents make the argument that they should be exempt from the domestic requirements of Section 255 if they also sell their products in foreign markets. This approach is fascinating when one considers parallel arguments. Given that many other markets do not so closely regulate toxic chemicals, should we lessen the standards for domestic manufacture and sale? Should automobile manufacturers be exempted from domestic safety and emissions standards until other countries raise their standards to match ours? Since Congress has seen fit to pass this law which requires readily achievable accessibility, usability, and compatibility of telecommunications equipment and CPE, it would seem contrary to Congress' intentions for the Commission or any other authority to make the degree of compliance expected in this country to be contingent on the actions, or lack thereof, of foreign legislatures; and it would seem to deprive individuals with disabilities of the protections intended for them by our Congress.

We submit that manufacturers who sell telecommunications equipment or customer premises equipment in international markets should be subject to the same accessibility requirements as any other telecommunications manufacturers selling in this country.

8. Conclusion.

We ask the Commissioners to ensure that the intent of Section 255 not be left to chance, via a case-by-case arbitration of complaints, or an expectation that the marketplace can now protect us in a way it never has before. We ask that the Commission issue regulations to ensure accessibility of telecommunications technologies which are integral to our functioning in every area of society. For us to be fully participating members of this society, the doors must be open for us. Section 255 has the potential to open those doors, if fully implemented through the Commission.

Respectfully submitted,



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Attachment A

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